

REMARKS

Initially, Applicants would like to thank Examiner Joynes for the courtesy extended in the telephone interview of February 6, 2003, during which the following amendments and remarks were discussed in detail.

Claims 1-55 were pending and now claims 56-84 are pending in the application after entry of this amendment.

Claims 1-55 have been canceled and Claims 56-84 have been added in a bonafide attempt to place the instant application in condition for allowance. More specifically, Claims 56-84 have been added to focus on certain aspects of the present invention comprising specified ranges of methyl acetate in combination with specified ranges of ethanol. Support for new Claims 56 - 84 can be found in the original claims and specification as filed. No new matter has been added by these amendments

Once again, the only remaining rejections raised by the Examiner in the Office Action of September 24, 2002 are based on 35 U.S.C. § 103(a) obviousness. For the reasons set forth below, these rejections are believed to be in error and should therefore be withdrawn.

I. Rejections over U.S. Patent No. 4,173,627

In a first rejection, the Office Action has rejected Claims 1, 33, 34, 43, 48, and 51-55 and certain claims depending therefrom, as allegedly being obvious over the teaching of U.S. Patent No. 4,173,627 (hereinafter "Madrangle").

It is well settled that in order to establish a *prima facie* case of obviousness, the prior art must teach, or at least suggest, the claimed invention as a whole. Moreover, there must be adequate motivation and a reasonable expectation of success to undertake the modifications proposed in the rejection. To this end, the Examiner was not persuaded by the Applicants' previous response that such standards have not been met in the instant application. However, the

Examiner's reasoning does appreciate several unexpected and superior results achieved by the instant invention.

As amended, now pending Claims 56 and 84 recite a composition comprising, in part, 20% to 55% by weight ethanol and 5% to 25% by weight methyl acetate. Therefore, it necessarily follows that at least one feature of the presently claimed invention is a combination of ethanol, present in the range of from 20% to 55% by weight, and methyl acetate, present in the range of from 5% to 25% by weight.

By requiring 5% to 25% by weight of methyl acetate, the presently claimed invention achieves the superior advantage of reducing the volatile organic compound content of the hair care composition. A volatile organic compound (VOC) is defined as any compound of carbon, which participates in atmospheric photochemical reactions. See, 40 C.F.R. 51.100 attached as appendix "A". To that end, methyl acetate has been expressly exempted from the list of volatile organic compounds. See, 40 C.F.R. 51.100. Therefore, the inclusion of VOC exempt methyl acetate in the claimed invention necessarily reduces the volatile organic compound content of the composition relative to a composition not containing a VOC exempt component.

To this end, the disclosure of Madrange does not teach or suggest a hair care composition that achieves the superior result of lowering the VOC content. Moreover, the disclosure of Madrange similarly fails to provide the requisite motivation to arrive at a hair care composition containing a reduced volatile organic compound content.

Specifically, Madrange discloses a composition containing at least one of: (a) a lower alkanol, such as ethanol, propanol, isopropanol or butanol; (b) a solvent such as 1,1,1 trichloroethane and methylene chloride; and (c) a diluent such as a ketone, in particular acetone and methylethyl ketone; an alkyl acetate, in particular methyl acetate or ethyl acetate, or a hydrocarbon, in particular a C₃-C₇ alkane. Furthermore, Madrange also makes clear that none of components (a), (b) or (c) is required. See, Col. 3, lines 37-52. Therefore, Madrange discloses a

“laundry list” of at least 149 possible chemical combinations.¹ Moreover, from the laundry list of compounds and possible combinations set forth in components (a), (b) and (c), only acetone, methyl acetate, 1,1,1 trichloroethane and methylene chloride are VOC exempt compounds. See, 40 C.F.R. 51.100.

Second, the characteristic, unpleasant, odor associate with alkyl acetates, such as methyl acetate, is acknowledged in the art as a hindrance to consumer acceptance of hair care compositions. To that end, the Applicants have unexpectedly discovered that the unpleasant odor associated with methyl acetate is substantially reduced when combined with ethanol as recited in the present claims. See, attached Second Declaration of Suzanne Dobbs.

The disclosure of Madrange similarly fails to teach or suggest a combination of components capable of reducing the unpleasant odor associated with methyl acetate. As set forth above, Madrange discloses a laundry list of at least 149 possible chemical combination. Assuming one of ordinary skill in the art would even have been motivated to select methyl acetate from the laundry list of possible components, compositions comprising methyl acetate alone or in combination with other components other than ethanol which are disclosed in Madrange (See Col. 3, lines 37-52) do not achieve the same superior and unexpected result of reducing the unpleasant odor associated with methyl acetate. See, attached Second Declaration of Suzanne Dobbs.

Finally, Applicants have also unexpectedly discovered that ethanol inhibits the detrimental effects that methyl acetate by itself can cause to acetate fabrics. See, attached Second Declaration of Suzanne Dobbs.

¹ The number 149 was calculated as follows:

Component (a) discloses 4 preferable species; component (b) discloses 2 preferable species; and component (c) discloses 9 preferable species. Accordingly, there are:

- 1) 4 times 2, or 8 combinations of only component (a) and (b).
- 2) 4 times 9, or 36 combinations of only components (a) and (c).
- 3) 2 times 9, or 18 combinations of only components (b) and (c).
- 4) 4 times 2 times 9, or 72 combinations of components (a), (b) and (c).
- 5) 4 plus 2 plus 9, or 15 possibilities of only one of components (a), (b) and (c)

Therefore, the sum of 8, 36, 18, 72, and 15 is 149.

The disclosure of Madrange fails to teach or suggest a combination of components capable of inhibiting detrimental effects that methyl acetate can have on acetate fabrics. Assuming again for the sake of argument that one of ordinary skill in the art would have even been motivated to select methyl acetate from the laundry list of possible components, compositions comprising methyl acetate alone, or in combination with other components other than ethanol which are disclosed in Madrange (See Col. 3, lines 37-52) do not achieve the unexpected result of inhibiting the detrimental effects methyl acetate has on acetate fabrics. See, attached Second Declaration of Suzanne Dobbs.

Therefore, not only does Madrange fail to teach or suggest the claimed invention as a whole, there similarly is no motivation for one of ordinary skill in the art to arrive at a hair care composition that achieves the superior advantages of reducing the volatile organic compound content of the composition, reducing and/or masking the characteristic, unpleasant, odor associate with alkyl acetates, such as methyl acetate, and, inhibiting the detrimental effects that methyl acetate by itself can cause to acetate fabrics. As such, in view of the arguments set forth above, it is respectfully requested that the outstanding rejection in view of Madrange should be withdrawn.

II. Rejections over U.S. Patent No. 4,243,548

In a second rejection, the Office Action has similarly rejected Claims 1, 33, 34, 43, 49-50, and certain claims depending therefrom, as allegedly being obvious over the teachings of U.S. Patent No. 4,243,548 (hereinafter "Heeb"). Once again, the reasoning behind this rejection fails to appreciate several unexpected and superior results achieved by the compositions recited in now pending Claims 56-84.

The disclosure of Heeb does not teach or suggest a combination of components capable of reducing the unpleasant odor associated with methyl acetate. Specifically, Heeb discloses a formulation comprising at least one of 23 possible solvents that can be used alone or in combination. Considering possible formulations comprising the use of one solvent alone and only those possible combinations of any two listed solvents, Heeb therefore discloses a "laundry

list” of at least 276 possible combinations.² To this end, assuming one of ordinary skill in the art would in fact have been motivated to select methyl acetate from the laundry list of possible components, compositions comprising methyl acetate alone or in combination with other components disclosed in Heeb (See Col. 2, lines 50-60) do not achieve the unexpected result of reducing the unpleasant odor associated with methyl acetate. See, attached Second Declaration of Suzanne Dobbs.

Second, Applicants have also unexpectedly discovered that ethanol inhibits the detrimental effects that methyl acetate by itself can cause to acetate fabrics. See, attached Second Declaration of Suzanne Dobbs.

The disclosure of Heeb similarly fails to teach or suggest a combination of components capable of inhibiting detrimental effects that methyl acetate can have on acetate fabrics. Once again, as set forth above, Heeb discloses a “laundry list” of at least 276 possible combinations. To this end, assuming one of ordinary skill in the art would have been motivated to select methyl acetate from the laundry list of possible components, compositions comprising methyl acetate alone, or in combination with other components disclosed in Heeb (See Col. 2, lines 50-60) do not achieve the unexpected result of inhibiting the detrimental effects methyl acetate has on acetate fabrics. See, attached Second Declaration of Suzanne Dobbs.

Therefore, not only does Heeb fail to teach or suggest a hair care composition providing the unexpected and superior results set forth above, but there similarly is no motivation for one of ordinary skill in the art to arrive at a hair care composition that achieves these superior and

² The number 276 was calculated using the following formula:

$$n!/[(n-r)!r!]$$

wherein “n” is the total number of elements (in this case 23 species) and “r” is the number of elements in the subset (in this case a combination of any 2 species). Therefore,

$$23!/[(23-2)!2!] = 253$$

However, there are also 23 possibilities if only one of the 23 species is used. Therefore, 253 + 23 = 276.

unexpected advantages. As such, in view of the arguments set forth above, it is respectfully requested that any rejection of now pending claims in view of Heeb be withdrawn.

III. Examiner's Rejection of First Declaration of Suzanne Dobb's

Lastly, in the Final Office Action dated September 24, 2002, it was stated that the Rejections made in the previous Non-Final Office Action of January 2, 2002 were maintained due to a finding that the first Declaration of Suzanne Dobb's was not persuasive. *See*, Final Office Action of September 24, 2002, page 5. More Specifically, it was stated therein that the Declaration was found unpersuasive for: 1) failure to address a composition comprising a fixative; 2) failure to show the advantages of the combination of ethanol and t-butyl acetate or isopropanol and t-butyl acetate; and 3) reciting specific concentrations for each ingredient that were not reflected in the then pending claims.

Applicant's respectfully submit that these three objections raised by the Examiner over the first Declaration of Suzanne Dobb's have been overcome. First, the Second Declaration of Suzanne Dobb's, which is filed concurrently herewith, clearly addresses compositions comprising a fixative. Second, as amended herein, Claims 56-84 are no longer directed to compositions comprising the combination of ethanol and t-butyl acetate or isopropanol and t-butyl acetate. Third, the specific concentrations for each ingredient recited in the Second Declaration of Suzanne Dobb's are commensurate in scope with the specific concentrations for each ingredient recited in the pending claims.

Therefore, it is respectfully suggested that any rejection of the now pending claims has been obviated in view of the Amendments and Remarks set forth above and that the application is in condition for allowance. Therefore, Applicants respectfully seek notification of same.

CONCLUSION

In view of the Amendments and Remarks set out above, it is respectfully asserted that the rejections set forth in the Office Action of September 24, 2002 have been overcome and that the

application is in condition for allowance. Therefore, Applicants respectfully seek notification of same.

A credit card payment authorization form in the amount of \$1,680.00 is enclosed for the Three-Month Extension of Time and RCE. No additional fee is believed due; however, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,
NEEDLE & ROSENBERG, P.C.

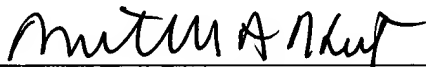


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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: BOX RCE, Commissioner for Patents, Washington, D.C. 20231, on the date below.



Mitchell A. Katz

March 21, 2003
Date